

Appl No. 09/812,260
Amdt. dated February 10, 2005
Reply to Office action of January 19, 2005

Amendments To The Specification

Please replace the paragraph at page 9, lines 11 through 25 with the following amended paragraph:

The present invention modifies the process described above, and will now be described with particular reference to the flow diagram shown in Fig. 3. A first communication device C1 desiring to communicate with a second communication device C2 first determines which sub-carriers are unsuitable due to interference in proximity to C1. In this regard, in step 50, C1 tests for interference by sampling the RF channel and receives the data using the transceiver~~Analog-to-Digital Converter (ADC)~~ and, in~~in~~ step 52, ~~converts this data~~ is converted to the frequency domain using an FFT algorithm or other suitable spectral analysis algorithms. In step 54, an energy detector and processing means for evaluating the energy level of each sub-carrier are used to determine which sub-carriers are usable (i.e., are not subject to interference). In this regard, the energy levels are analyzed in accordance with a predetermined threshold energy level. Those sub-carriers which have an energy level above the predetermined threshold energy level are determined to be unusable sub-carriers. Thus, C1 will not desire to communicate using these sub-carriers. If C1 deems that not enough sub-carriers are available for reliable communication it will delay transmitting data until C1 detects less interference in the channel or reduces its data rate to make the link more robust.